Listing of the Claims

1-9. Canceled

10. (Currently amended) The process of claim 99 wherein the flame retardant composition includes one or more flame retardant substances selected from the group consisting of phosphoric acid, ~~phosphoric acid,~~ halogen-free phosphoric acid derivatives, ammonium polyphosphate, ammonia, ~~ammonia~~ ammonium phosphate, ammonium molybdate, ammonium borate, organophosphorus chemicals, ~~melamine,~~ melamine chemicals, intumescent chemicals, alumina trihydrate, urea, guanidine, dicyandiamide, ethyl urea, ethylamine, thiourea, diethylenediamine, ethylenediamine, brominated aromatic organic compounds or brominated cycloaliphatic organic compounds.

11-13. Canceled

14. (Previously presented) The process of claim 79 wherein the substrates are filaments, microfibers or fibers.

15-78. Canceled

79. (Previously presented) A process for applying a flame retardant composition to a first and second substrate having at least a 5 weight percent of non-thermoplastic material, the process comprising:

treating the first substrate in a first treatment vessel with the flame retardant composition which is free of dye or other contaminating agents;

transferring a first depleted portion of the flame retardant composition from the first treatment vessel to a second treatment vessel;

removing a first excess portion of the flame retardant composition from the first substrate;

drying the first substrate to a first desired moisture content;

treating the second substrate in a second treatment vessel with a flame retardant composition which includes the first depleted portion of the flame

retardant composition;

transferring a second depleted portion of the flame retardant composition from the second treatment vessel to the first treatment vessel;

removing a second excess portion of the flame retardant composition from the second substrate; and

drying the second substrate to a second desired moisture content.

80. (Previously presented) The process of claim 79, further comprising forming the flame retardant composition by mixing a plurality of substances in a collection tank before treating the first substrate with the flame retardant composition .

81. (Previously presented) The process of claim 80 wherein mixing a plurality of substances includes:

mixing a flame retardant substance;

mixing a solvent compatible with the first and second substrates, the solvent having a quantity sufficient to mix the flame retardant substance; and

mixing an adhesion agent having a quantity sufficient to adhere the flame retardant substance to the first and second substrates.

82. (Previously presented) The process of claim 80, wherein mixing a plurality of substances further includes:

mixing at least one of a stability agent;

mixing a viscosity enhancing agent; and

mixing a wetting agent.

83. (Previously presented) The process of claim 80, further comprising transferring the first excess portion to the collection tank, after removing the first excess portion.

84. (Previously presented) The process of claim 80, further comprising transferring the second excess portion to the collection tank, after removing the second excess portion.

85. (Previously presented) The process of claim 79, further comprising:

rinsing the first substrate with a rinse liquid, after the step of removing the first excess portion of the flame retardant composition from the first substrate and before the step of treating the second substrate with the first excess portion of the flame retardant composition; and

removing an excess rinse liquid from the first substrate, after the step of rinsing the first substrate and before the step of treating the second substrate with the first excess portion of the flame retardant composition.

86. (Previously presented) The process of claim 85, wherein rinsing the first substrate includes spraying the rinse liquid onto the first substrate.

87. (Previously presented) The process of claim 79, wherein removing a first excess portion of the flame retardant composition from the first substrate includes using a centrifugation technique.

88. (Previously presented) The process of claim 79, wherein removing a first excess portion of the flame retardant composition from the first substrate includes squeezing the first substrate between two rollers.

89. (Previously presented) The process of claim 79, wherein removing a first excess portion of the flame retardant composition from the first substrate includes using a centrifugation technique.

90. (Previously presented) The process of claim 79, wherein removing a second excess portion of the flame retardant composition from the second substrate includes squeezing the second substrate between two rollers.

91-98. Canceled

99. (Currently amended) A process for rendering fibers flame retardant, comprising the steps of:

applying a flame retardant composition to a <u>first</u> plurality of fibers in a first

vessel ~~and to a plurality of fibers in a second vessel~~;

recovering ~~excess~~ flame retardant composition which is not applied to said first plurality of fibers in said first vessel from said first vessel;

supplying said flame retardant composition which is recovered in said recovering step to a second vessel which contains a second plurality of fibers for application to said second plurality of fibers;

removing said first plurality of fibers from said first vessel;

drying said first plurality of fibers; and

recovering flame retardant composition which is not applied to said second plurality of fibers in said second vessel from said second vessel, and supplying recovered flame retardant composition to said first vessel after said removing step ~~, and excess flame retardant composition which is not applied to said plurality of fibers in said second vessel from said second vessel, said excess flame retardant composition recovered during said recovering step being undiluted by rinse liquid and being free of dye or other contaminants;~~

~~drying said first and second substrates; and~~

~~re-using said excess flame retardant composition by transferring portions of said excess flame retardant composition obtained from said first vessel to said second vessel and portions of said excess flame retardant composition from said second vessel to said first vessel for applying flame retardant to a plurality of fibers respectively positioned in said first and second vessels~~.

100-104. Canceled

105. (Previously presented) The process of claim 99 wherein said applying step is performed under conditions sufficient to cause penetration of said flame retardant composition through a cross-section of individual fibers in said plurality of fibers.

106. Canceled

107. (New) The process of claim 99 further comprising the steps of:

removing said second plurality of fibers from said second vessel; and

drying said second plurality of fibers.

108. (New) The process of claim 107 further comprising the step of centrifuging said second plurality of fibers.

109. (New) The process of claim 99 further comprising the step of centrifuging said first plurality of fibers.